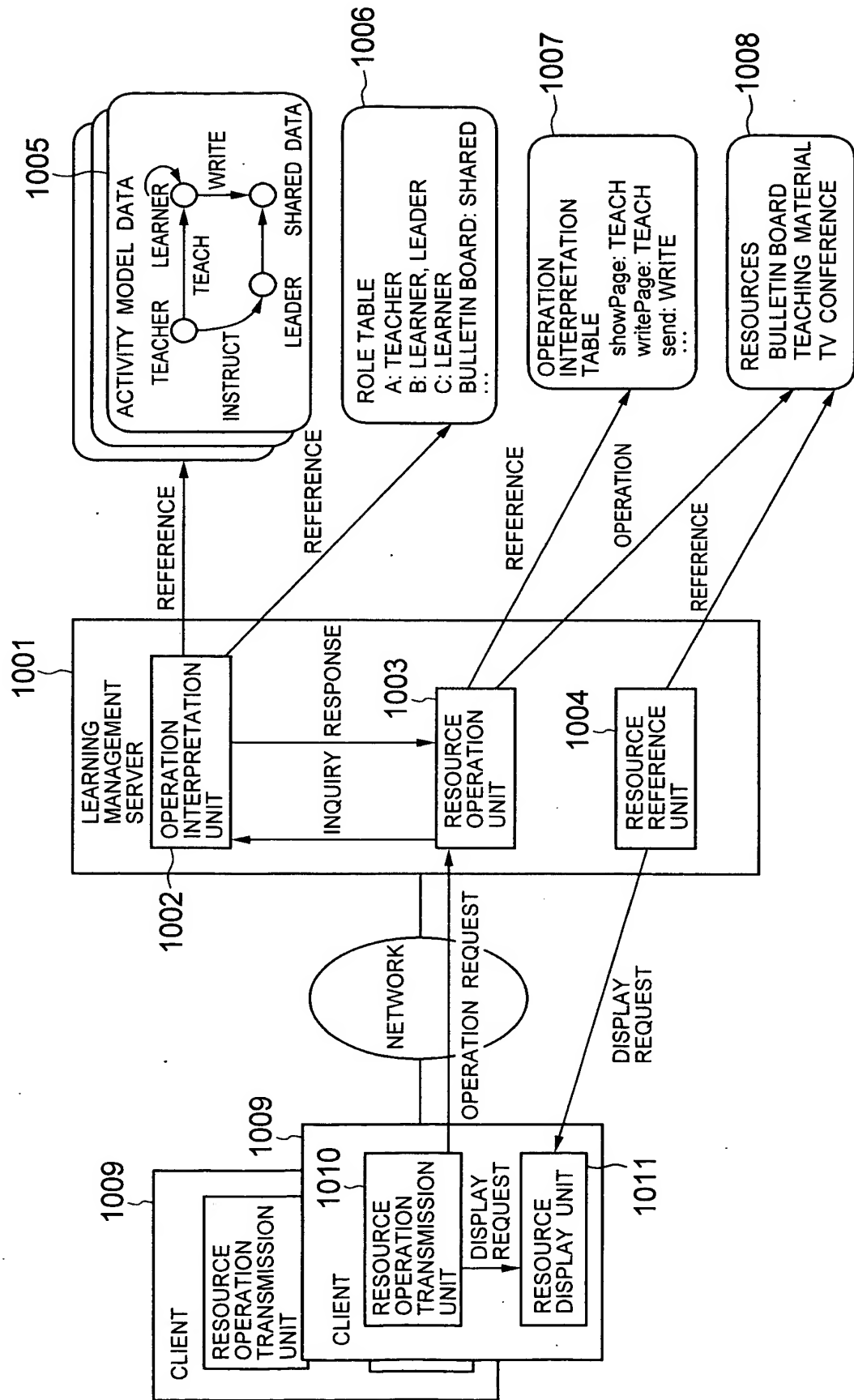


FIG. 1



20250103 09:22:50

FIG. 2

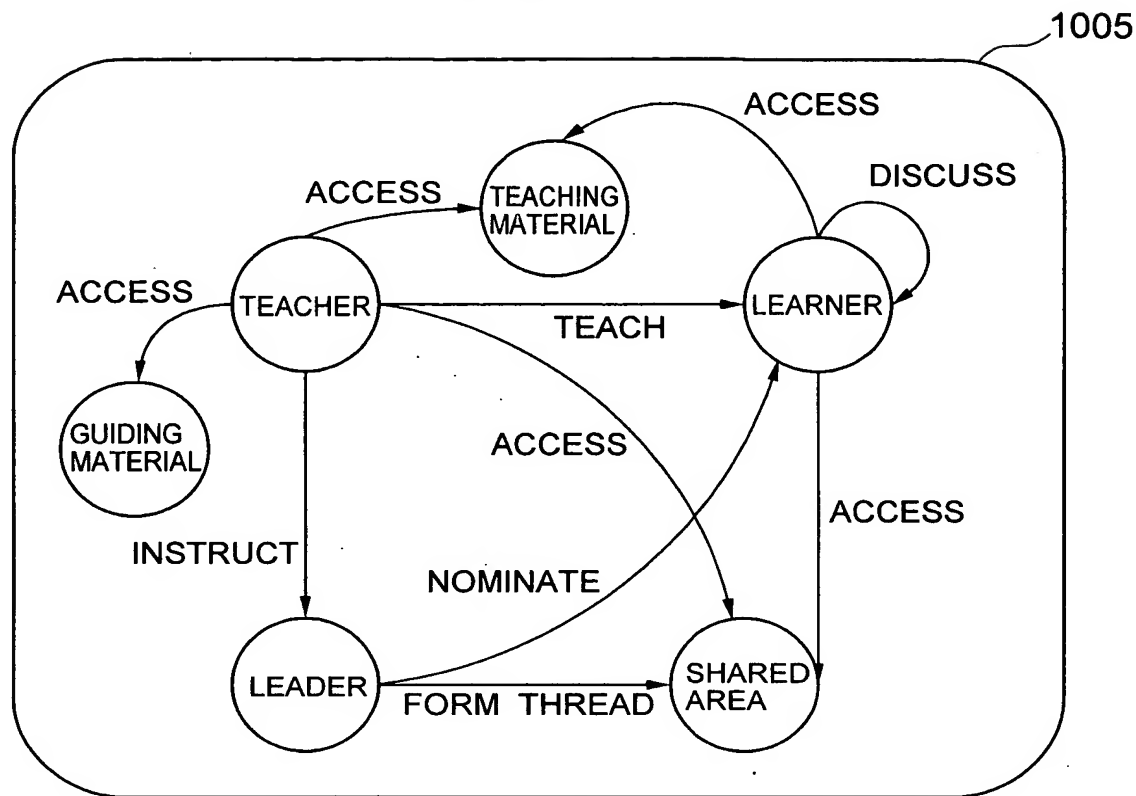


FIG. 3

RESOURCE ID	ROLES OF 1ST MODEL	ROLES OF 2ND MODEL
USER A	LEADER, LEARNER		
USER B	LEARNER		
USER C	LEARNER		
USER D	TEACHER		
BULLETIN BOARD	SHARED AREA		
CHAT BOARD	SHARED AREA		
.....

FIG. 4

1007

OPERATION PATTERN	BEHAVIOR	OBJECT LIST
WRITE (BOARD, ARTICLE)	WRITE	BOARD
WRITE TO (BOARD, ARTICLE, WHO)	DISCUSS	WHO
GET (MATERIAL)	REFER	LEARNING MATERIAL
⋮	⋮	⋮

FIG. 5

5001

BEHAVIOR NAME	SUBJECT	OBJECT LIST
TEACH	TEACHER	LEARNER
ACCESS	TEACHER	LEARNING MATERIAL
ACCESS	TEACHER	GUIDING MATERIAL
ACCESS	LEARNER	LEARNING MATERIAL
ACCESS	TEACHER	SHARED AREA
ACCESS	LEARNER	SHARED AREA
INSTRUCT	TEACHER	LEADER
NOMINATE	LEADER	LEARNER
DISCUSS	LEARNER	LEARNER
DISCUSSION THREAD CREATION	LEADER	SHARED AREA
ROLE ALLOCATION	LEADER	LEARNER TASK DATA

20150101 09:24:50

FIG. 6

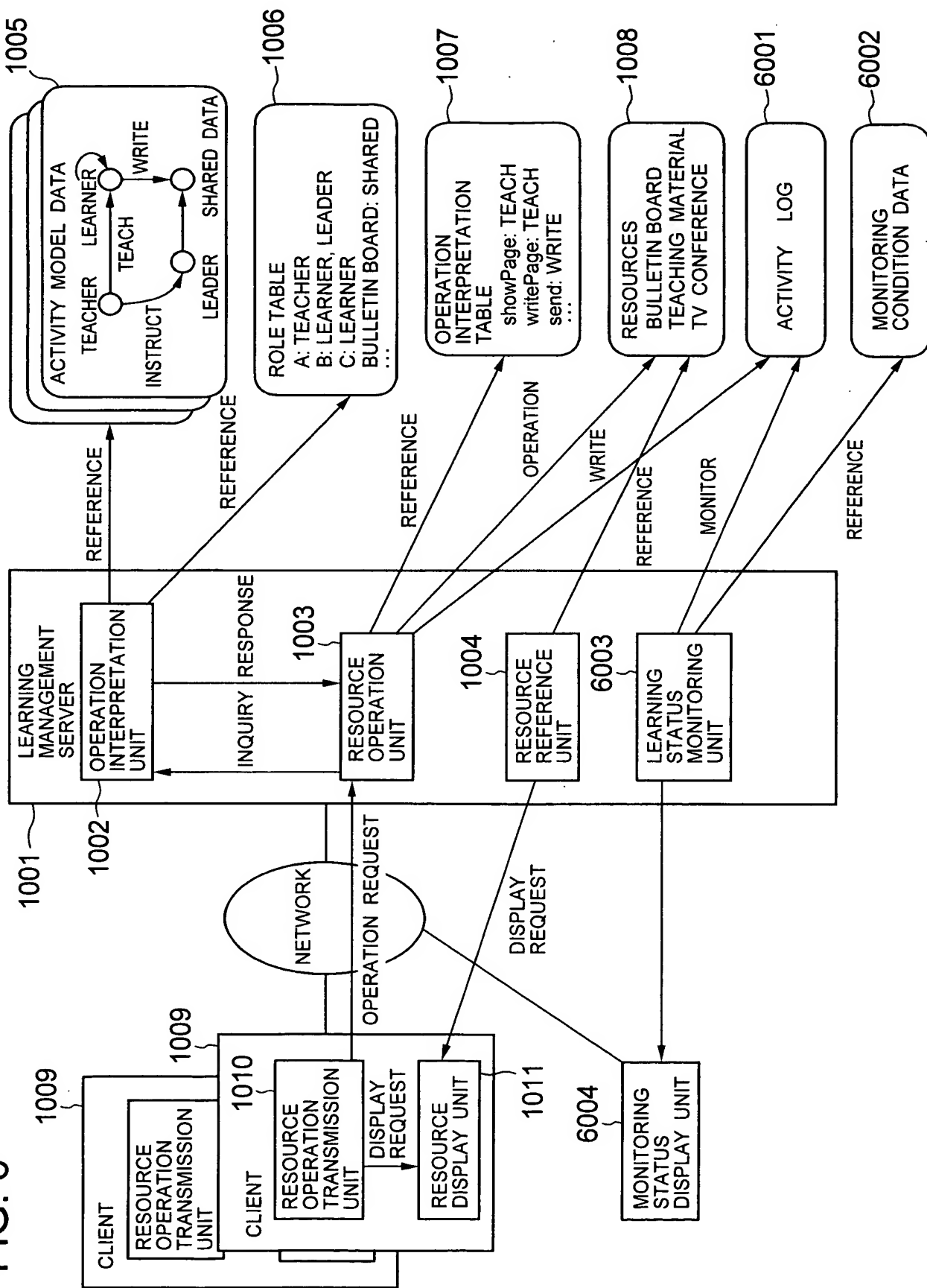


FIG. 7

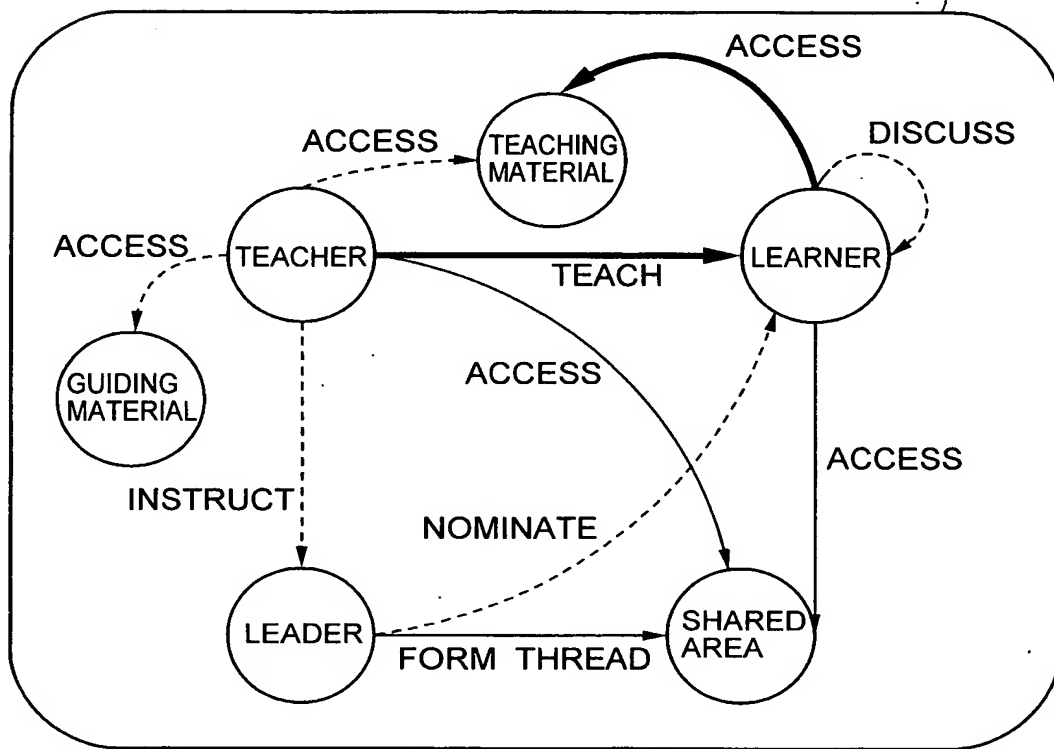
6001

BEHAVIOR NAME	SUBJECT	OBJECT LIST	COUNT	HISTORY
TEACH	TEACHER	LEARNER	1	USER D TEACHES USER B
ACCESS	TEACHER	LEARNING MATERIAL	10	---
ACCESS	TEACHER	GUIDING MATERIAL	5	---
ACCESS	LEARNER	LEARNING MATERIAL	120	---
ACCESS	TEACHER	SHARED AREA	231	---
ACCESS	LEARNER	SHARED AREA	---	---
INSTRUCT	TEACHER	LEADER	---	---
NOMINATE	LEADER	LEARNER	---	---
DISCUSS	LEARNER	LEARNER	---	---
FORM THREAD	LEADER	SHARED AREA	---	---
ROLE ALLOCATION	LEADER	LEARNER TASK DATA	---	---

20250426 013103

FIG. 8

8001



20250426-013102

20250426.013102

FIG. 9

9001

RESOURCE ID	ROLE	ACTIVITY STATUS
USER A	LEADER	<div></div>
	LEARNER	<div></div>
USER B	LEARNER	<div></div>
USER C	LEARNER	<div></div>
USER D	TEACHER	<div></div>

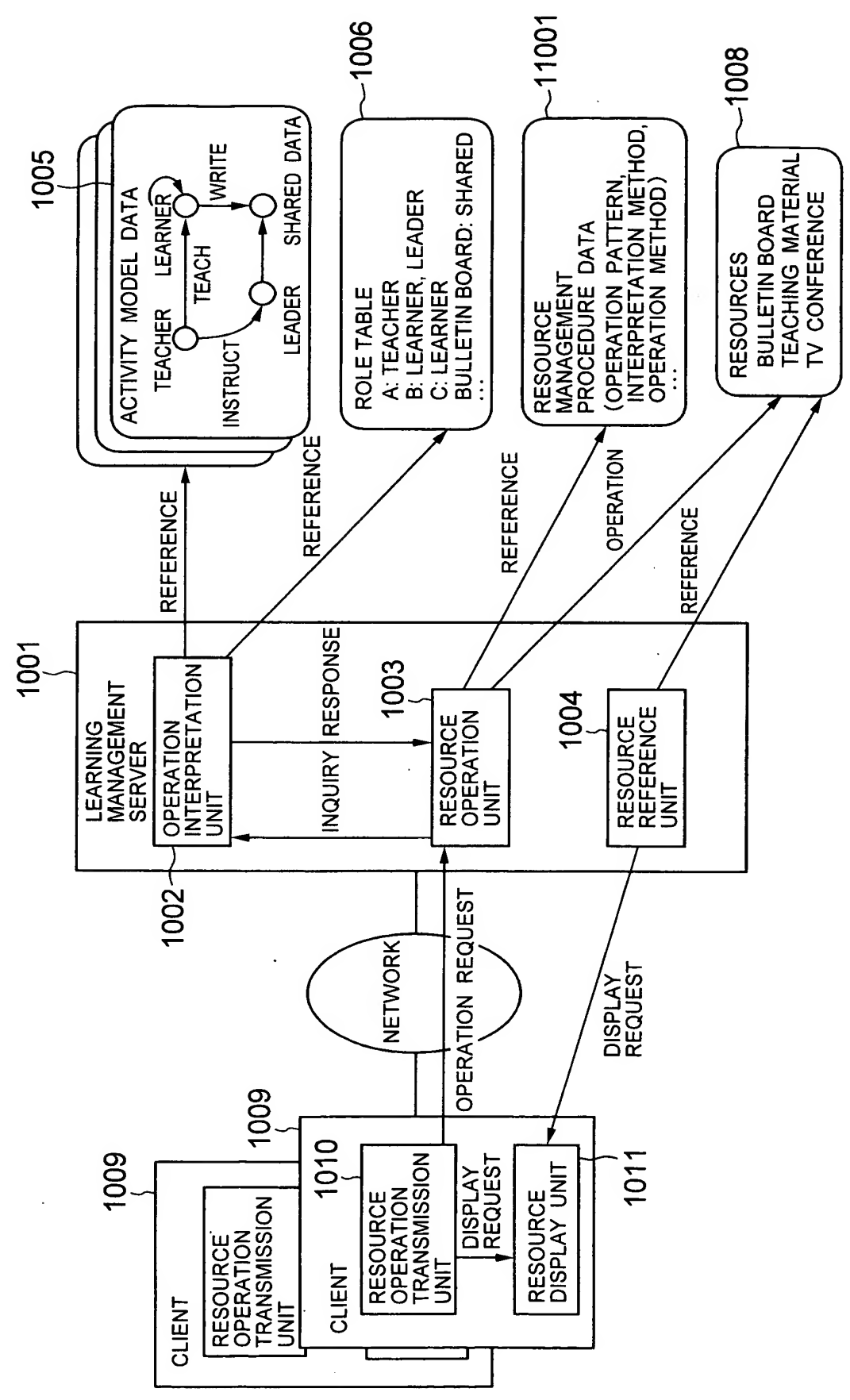
FIG. 10

10001

RESOURCE ID	ROLE	MONITORING CONDITION
USER A	LEADER	LAPSE TIME > 48 H & ACTIVITY NUMBER < 10
	LEARNER	...
USER B	LEARNER	...
USER C	LEARNER	...
USER D	TEACHER	...

20120101 92465001

FIG. 11



APPROVED
BY
DATE

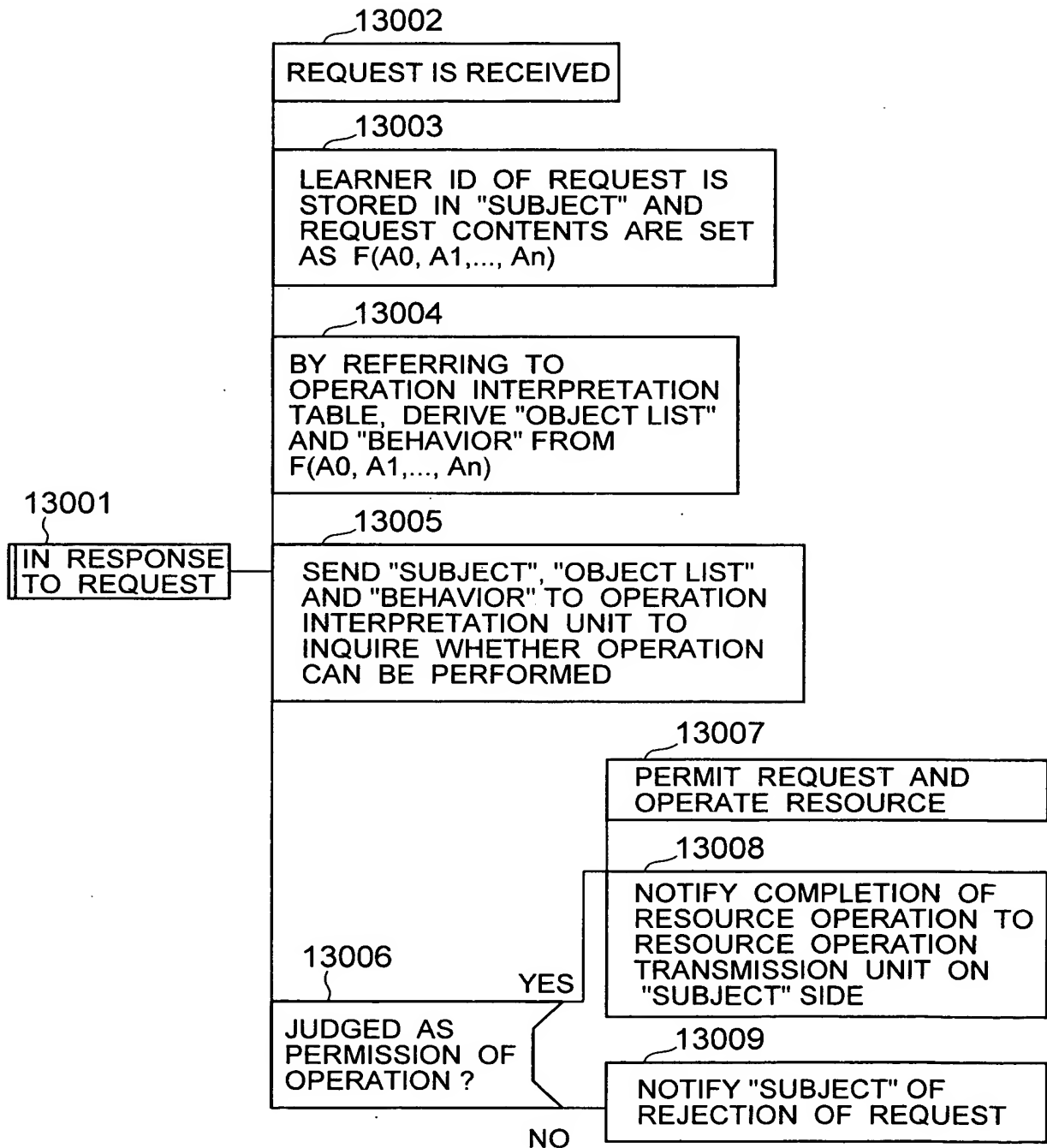
FIG. 12

12001

OPERATION PATTERN	INTERPRETATION METHOD	OPERATION METHOD
$F(X_0, X_1, \dots, X_n)$	$M(X_0, X_1, \dots, X_n)$	$C(X_0, X_1, \dots, X_n)$
\vdots	\vdots	\vdots

20250426 013102

FIG. 13



20250426-043102

FIG. 14

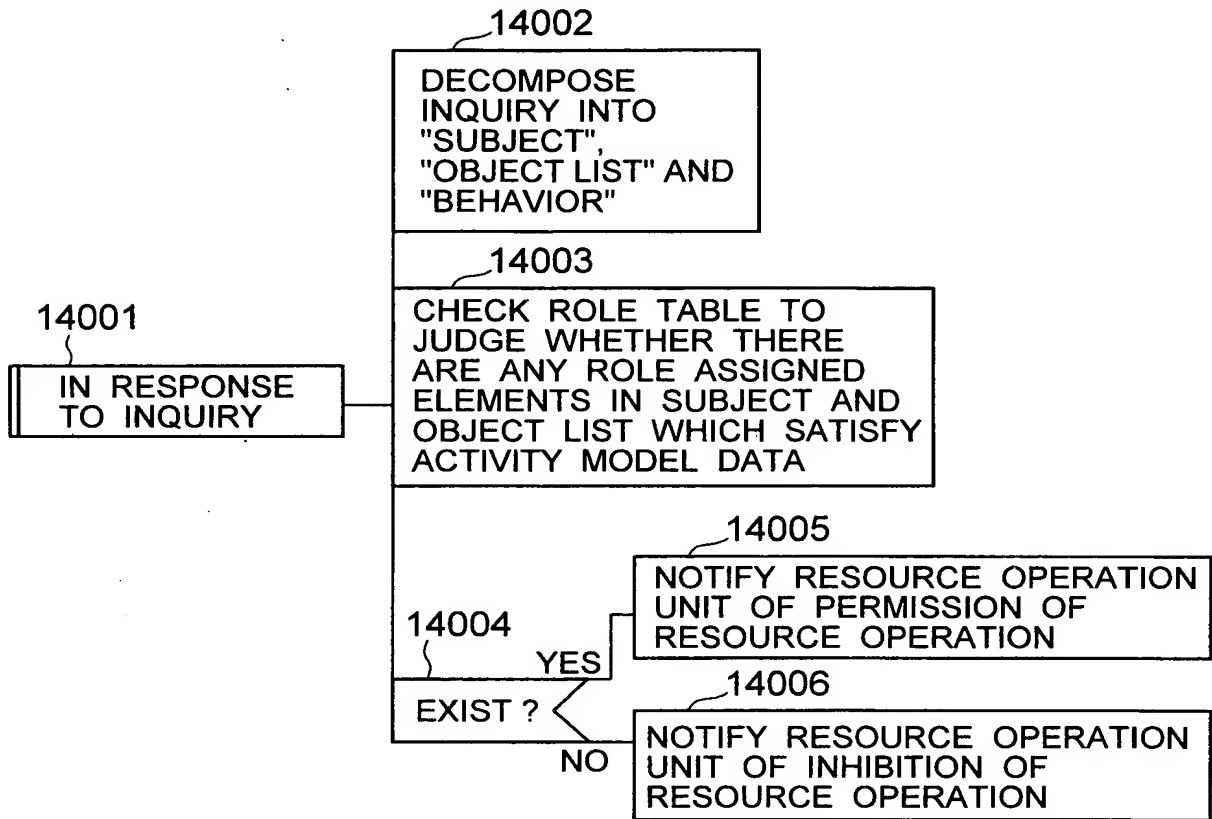
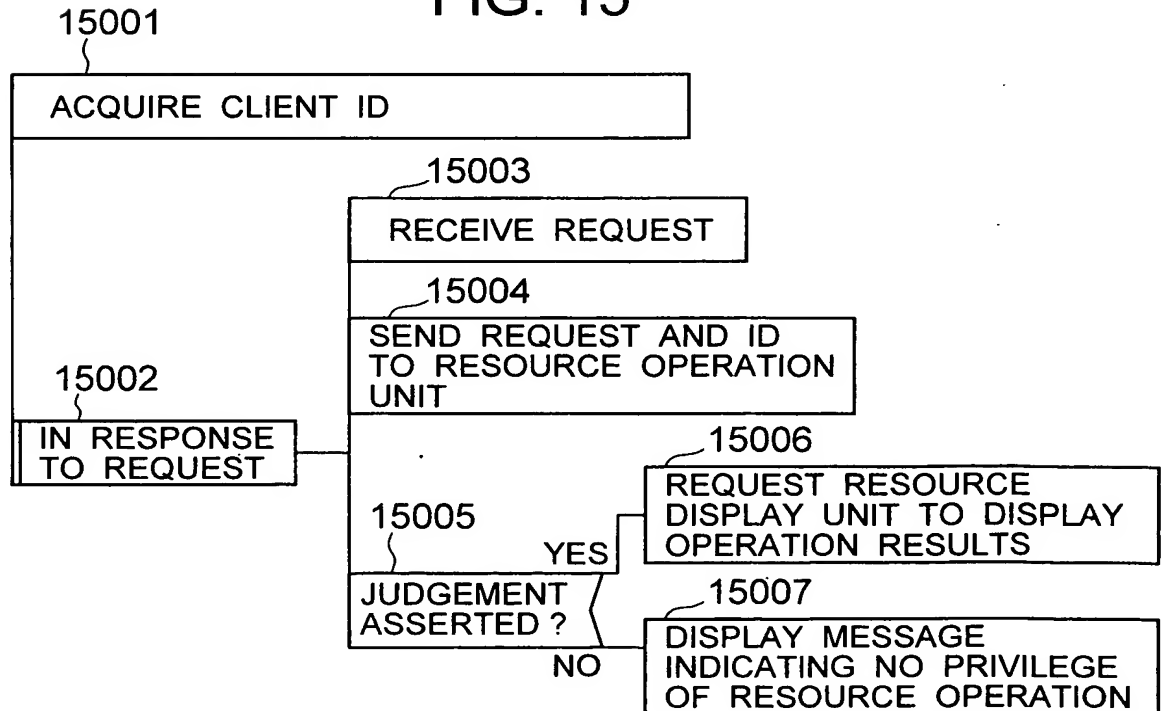
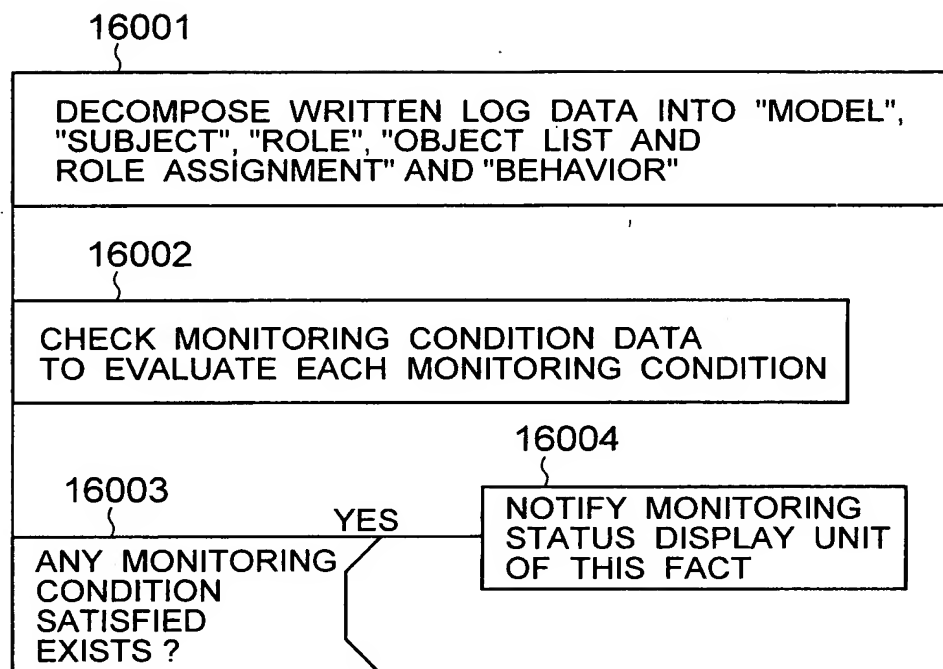


FIG. 15



20250925-013102

FIG. 16



20250426 01:10

FIG. 17

